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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,396	04/26/2001	Stefan Dutzmann	Mo5334/LcA 32,232	4187
34469	7590	12/28/2007		
BAYER CROPSCIENCE LP Patent Department 2 T.W. ALEXANDER DRIVE RESEARCH TRIANGLE PARK, NC 27709			EXAMINER CHOI, FRANK I	
			ART UNIT 1616	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/843,396	<b>Applicant(s)</b> DUTZMANN ET AL.	
	<b>Examiner</b> Frank I. Choi	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/402,866.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC §103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of US Pat. 3,903,090.

Applicant acknowledges that prothioconazole has good fungicidal activity but at low application rates it is in some cases not satisfactory (Specification, Pg. 1). Applicant acknowledges that a large number of triazole derivatives, aniline derivative, dicarboimides and other heterocycles can be employed for controlling fungi, such as set forth in EP A 0 040 345, De A 2 201 063, DE -A 2 324 0 10, Pesticide Manual, 9<sup>th</sup> ed (1991), pages 249 and 827, U S Pat. No. 3, 903, 090 and EP - A 0 206 999, and that likewise these compounds are not always satisfactory at low application rates (Specification Pg. 1). Applicant acknowledges that compounds combined with prothioconazole are all known compounds (Specification, pages 14-17).

US Pat. 3,903,090 discloses that the N-(3,5-dihalophenyl)-imide compounds can be extended with suitable carriers and can be combined with other fungicides (Column 32, lines 20-39).

The prior art discloses that the compounds are known fungicides. The difference between the prior art and the claimed invention is that the prior art does not expressly disclose the

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combination of prothioconazole with the other fungicides. However, the prior art amply suggests the same as it is known that that the compounds used singly are effective fungicides, and that fungicides can be combined together and be formulated with suitable extenders. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to combine prothioconazole with one or more of the other fungicides with the expectation that the combination would be an effective fungicide and that that the formulations could be extended with suitable carriers.

“It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be prima facie obvious.). See also In re Crockett, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and Ex parte Quadranti, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held prima facie obvious).

The Examiner has duly considered Applicant's arguments and the Declaration of Wachendorff-Neumann (5/18/2007) but deems them unpersuasive.

The Examiner argues that the claims, as amended, are not commensurate in scope with the evidence of synergy. The Specification does not appear to provide evidence of synergy for all compounds and/or ranges. Specifically, where the efficacy of the combination of the active

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agents are provided the actual efficacy for prothioconazole and active compounds 1,2,11, 12 (1:5 ratio), and 20 are not provided, as such, the expected efficacy cannot be calculated in order to establish whether synergy is present. With respect to compounds 4, 15(1:1),21,22, 24, there does not appear to be any evidence of synergy. Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the “objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support.” In re Clemens, 206 USPQ 289, 296 (CCPA 1980) (Claims were directed to a process for removing corrosion at “elevated temperatures” using a certain ion exchange resin (with the exception of claim 8 which recited a temperature in excess of 100C). Appellant demonstrated unexpected results via comparative tests with the prior art ion exchange resin at 110C and 130C. The court affirmed the rejection of claims 1-7 and 9-10 because the term “elevated temperatures” encompassed temperatures as low as 60C where the prior art ion exchange resin was known to perform well. The rejection of claim 8, directed to a temperature in excess of 100C, was reversed.). See also In re Peterson, 65 USPQ2d 1379, 1382-5 (Fed. Cir. 2003) (data showing improved alloy strength with the addition of 2% rhenium did not evidence unexpected results for the entire claimed range of about 1-3% rhenium); In re Grasselli, 218 USPQ 769, 777 (Fed. Cir. 1983) (Claims were directed to certain catalysts containing an alkali metal. Evidence presented to rebut an obviousness rejection compared catalysts containing sodium with the prior art. The court held this evidence insufficient to rebut the prima facie case because experiments limited to sodium were not commensurate in scope with the claims.).

Furthermore, the amount of active agents are claimed as ratios, however, a ratio is only limited by the relation of the amounts of the components to each other. As such, although the Applicant may have shown synergy as per the Colby formula at the amounts tested. A single

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combination tested is not sufficient to provide support that the ratio is synergistic over the range of different combinations of amounts that would result in the claimed ratio. In order to provide support for the claimed ratio, the Applicant must show a trend that would allow one of ordinary skill in the art to extend the probative value thereof. See *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980).

The Applicant argues that there is no motivation to select these specific 24 mixing partners for prothioconazole and that to know that these specific combinations would demonstrate a synergistic effect when combined with prothioconazole in specific ratios set forth in the claim. However, as indicated above the ratio is not representative of the specific amount tested. The ratio encompasses any amount of the active ingredients that in mixture are in the claimed proportions. Since activity is dependent on dose applied, the evidence shows that the amounts tested were synergistic but is insufficient to show that the entire scope of relative amounts that would fall within the claimed ratio would exhibit synergy. Finally with respect to motivation, there is no motivation requirement.

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, held the following:

(1) the obviousness analysis need not seek out precise teachings directed to the subject matter of the challenged claim and can take into account the inferences and creative steps that one of ordinary skill in the art would employ;

(2) the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents;

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(3) it is error to look only the problem the patentee was trying to solve-any need or problem known in the filed of endeavor at the time of invention and addressed by the prior art can provide a reason for combining the elements in the manner claimed;

(4) it is error to assume that one of ordinary skill in the art in attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem-common sense teaches that familiar items may have obvious uses beyond their primary purposes, and in many cases one of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle (one of ordinary skill in the art is not automaton);

(5) it is error to assume that a patent claim cannot be proved obvious merely by showing that the combination of elements was "obvious to try". KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396, 1397 (U.S. 2007).

As such, one of ordinary skill in the art would be able to select mixtures of fungicides based on known fungicidal activity and be able to determine appropriate dosages based on efficacy. The burden then is on the Applicant to provide sufficient evidence of unexpected activity which is commensurate in scope of the claims. Since the Applicant has not done so the rejection herein is maintained.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being obvious over WO 96/16048 and the acknowledged prior art.

WO 96/16048 discloses the combination of prothioconazole with other fungicides, including propineb, dimethomorph and fosetyl-aluminum, to widen the spectrum of action, to

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prevent build of resistance and that the activity of the mixture in many cases exhibits synergistic activity and that the formulations are prepared in a known manner, for example by mixing the active compounds with surfactants and extenders, and that application concentrations of the active compounds depend on the nature and occurrence of the microorganisms to be controlled and on the composition of the material to be protected and the optimum amount to be employed can be determined by a series of tests(see entire reference, especially, Pg. 42, lines 11-15, Pg. 43, lines 15-30, Pg. 44, Pg. 47).

The acknowledged prior art is cited for the same reasons as above and are incorporated herein to avoid repetition.

The prior art discloses that prothioconazole can be combined with other fungicides, including propineb, dimethomorph and fosetyl-aluminum. The difference between the prior art and the claimed invention is that the prior art does not expressly disclose the combination of prothioconazole with other fungicides. However, the acknowledged prior art amply suggests the same as it is known that that the compounds used singly are effective fungicides, that prothioconazole can be combined with other fungicides and that they can be formulated with surfactants and extenders. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to combine prothioconazole with one or more of the other fungicides with the expectation that the combination would be more effective than each alone and that surfactants and extenders would be suitable for use in the formulation.

“It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 850, 205 USPQ 1069, 1072 (CCPA 1980)



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(citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be *prima facie* obvious.). See also *In re Crockett*, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and *Ex parte Quadranti*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held *prima facie* obvious).

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the reasons above and the further reasons below.

Examiner had indicated to Applicant that the filing of the translation of the foreign priority document would overcome the rejection herein. However, upon further consideration, Examiner notes that the effective filing date of the present application in view of the translation is 4/18/1997. WO 96/16048 was published on 5/30/1996 and names at least one inventor that is not named in the present Application. As such, said reference qualifies as prior art under 35 USC 102(a) for purposes of the rejection under 103(a).

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

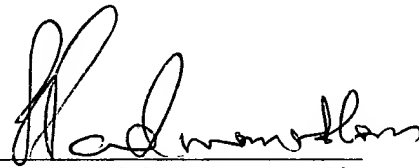
A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a compressed schedule and may be reached Monday, Tuesday, Thursday, Friday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Johann R. Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi  
Patent Examiner  
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December 24, 2007

(for)   
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